

Operator Examiner

News for Wastewater Treatment Professionals

Spring 1999

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Operator Certification Exams May 13

Pursuant to the Certification of Water and Wastewater Treatment Plant Operators Law, Acts of 1967, as amended IC 13-18-11 (old IC 13-1-6) and Rule 327 IAC 8-12, notice is hereby given that the Wastewater Treatment Plant Operator Certification Examinations for all industrial and municipal classes are scheduled for May 13, 1999. Exact time and location will be announced in the letter of acceptance that will be sent to eligible applicants.

Applications must be postmarked no later than March 29, 1999, and each application must be accompanied by the \$30 application fee. Applications postmarked after March 29 will **not** be considered for this examination. Mail completed applications and

checks made payable to IDEM
Cashier to:

IDEM Cashier
P.O. Box 7060
Indianapolis, IN 46207-7060

A study guide is available for each exam classification. Operators may request exam study packets at the number below or by faxing or mailing in the order form on page 3.

For further information, call Christine Hightower, IDEM certification officer for wastewater treatment plant operators, at (800) 451-6027, press 0 and ask for ext. 2-8666, or (317) 232-8666. E-mail: chightow@dem.state.in.us A

March 29
application
deadline!

Grandfathering of Licenses

The Operator Assistance and Training Section staff of the Indiana Department of Environmental Management are aware of the importance of this issue now that the certification rule revision is progressing. We would like to notify all certified operators that IDEM plans to convert licenses in good standing into an equivalent license(s) of any new classification system that may be adopted. This license conversion would occur regardless of the current employment status of the operator. If you have any questions, contact Christine Hightower at (800) 451-6027, press 0 and ask for ext. 2-8666, or (317) 232-8666. A

Year 2000 (Y2K) Problem

& Wastewater/Water Treatment for Small Communities

The following practical tips can help a small community address potential computer-related problems related to the inability of older programs to adequately address this issue. The original source for this information was obtained during a special session presented at the Water Environment Federation National Technical Conference during October 6, 1998, in Orlando, Florida. This information was assessed and combined with the unique problems of smaller municipalities (less than 10,000 population). These problems are almost identical to the potential problems that will be faced at water treatment plants.

Y2K can impact your community whether or not you have or depend upon a computer in your laboratory. The greatest fear about this upcoming event, for those who like everything anticipated, is that no technical expert is exactly sure of the extent of potential Y2K-related problems. The experts are not anticipating massive failures, but they do anticipate years

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...continued

of computer-related difficulties. Fortunately small communities can insulate themselves from most potential problems at a relatively small cost.

Efforts need to be taken in the following four areas:

1 Suppliers

Wastewater and water treatment plants depend on suppliers for chemicals and parts to both maintain operation and do testing to analyze performance. Many suppliers, particularly the smaller ones, depend on computers for billing and shipping. These suppliers may not be adequately Y2K protected. It is suggested that facilities acquire a list of backup suppliers just in case the first choice is unable to deliver, and it would be prudent to stockpile 30 to 60 days of material. Bear in mind the caution of the shelf life of certain chemicals, and larger than normal quantities of hazardous chemicals may trigger the need for emergency preparedness requirements.

2 Power

Many large energy providers are taking steps to reduce their Y2K potential problems. But smaller producers and distributors do not have large capital resources to draw from for extensive Y2K preparations, and if larger generators are having problems the smaller distributor may be impacted. Make sure that backup generators are exercised properly and that the power company has the plant listed as a priority in the event of power outages.

3 Budget

Many small communities rely on older billing systems that are not Y2K compliant. The lack of operating funds can quickly result in problems, especially in smaller communities that do not have a large cash reserve. If your billing system is three years old it is suspect. If it is five years old or older, the system should be replaced.

4 Control

Test all manual controls, gates, valves, etc. If your slide gates or valves are frozen due to age or lack of exercise, it would be a good time to replace or repair. Be aware of system vulnerabilities due to Programmable Logic Controllers which may be in areas that include boilers, chart recorders and emergency phone notification systems. Pre-1993 SCADA control systems should be replaced. Also check newer lab equipment such as D.O. meters for vulnerability.

It is important that you begin early to take action to protect your citizens from drinking and wastewater treatment problems related to Y2K since there is a shortage of experts to help you. Most importantly, document your activities in the Y2K area. Rest assured that those state and EPA enforcement staff are always interested in compliance problems, Y2K related or not. (R. Martin, EPA Region 5, 12/17/98)

Operators with Internet access can gain a wealth of Y2K information on the World Wide Web.

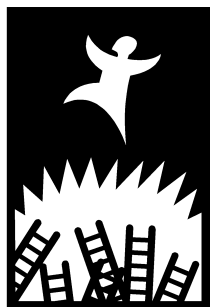
\$ The U.S. EPA Office of Water has a web site for preparation of water and wastewater plants:
www.epa.gov/year2000/ow.htm

\$ The Federal Emergency Management Agency has another site providing access to many references on personal preparation:
www.fema.gov/library/lib07.htm

\$ The National Fire Data Center has a site giving step-by-step directions for checking your desktop computer for Y2K compliance:
www.usfa.fema.gov/y2k/y2kcom.htm

For more information, call

Phil Preston at (800) 451-6027, press 0 and ask for ext. 2-8728, or (317) 232-8728. E-mail: ppreston@dem.state.in.us



New study guides for all classes and the Wastewater Operator's Guide are now available. Complete the order form to

the right and mail or fax it to the address listed. Or, you may order by phone at (800) 451-6027, press 0 and ask for ext. 3-0419, or (317) 233-0419. The materials will be mailed to you at no charge.

The following changes will be made to the May 1999 certification exams:

- \$ There will be a greater emphasis on mathematics and rules and regulations.
- \$ There will be a new study guide with revised formula sheets for each exam class.
- \$ The *Rules and Regulations Study Guide* will be replaced by the *Wastewater Operator's Guide*.
- \$ *MOP 11 Municipal Wastewater Treatment Plants* will be used for Classes II, III and IV.
- \$ *MOP FD-3 Pretreatment of Industrial Waste* will be added for classes B, C and D.
- \$ *Simplified Laboratory Methods* will be dropped.

Order Form

Study Guides for Classes I, II, III, IV, A, B, C, and D, and the Wastewater Operator's Guide

Please fill in the information requested below and fax this page to (317) 232-8406, or mail it to:

IDEM Water Management
ATTN: Christine Hightower
IGCN 1255
P.O. Box 6015
Indianapolis, IN 46206-6015

Study Guide Class	I	II	III	IV	A	B	C	D
Quantity								

Wastewater Operator's Guide	Quantity

Name _____

Address _____

City _____ State _____ Zip Code + 4 _____

Phone () _____

Revival of Mayflower Outreach Lab Assistance Program

With the hiring of Barbara D. McDowell, the Operator Assistance and Training Section will resume the outreach lab assistance program beginning in May 1999. McDowell is a recent graduate of the School of Public and Environmental Affairs, Indiana University. She comes to OATS with a background in education. She will assist operators in laboratory analysis procedures at small wastewater treatment plants (with an average flow of less than one million gallons per day). For more information, call McDowell at (800) 451-6027, press 0 and ask for ext. 3-6464, or (317) 233-6464. E-mail: bmcdowel@dem.state.in.us A

Results of November 1998 Certification Exam

The Certification Examination was administered on November 18, 1998, at three locations (Indianapolis, Elkhart and Jasper). A total of 341 people took the exams. The overall passing rate for municipal and industrial combined was 34 percent. Passing rates generally increase after the exam review period due to the successful challenges by examinees of several questions.

The past year has been filled with staff shortages, staff illnesses and staff retirements. Many of you have actually apologized for calling (!) the certification office and always have been more concerned about our staff than the delays you were enduring. So, thank you for your patience and concern.

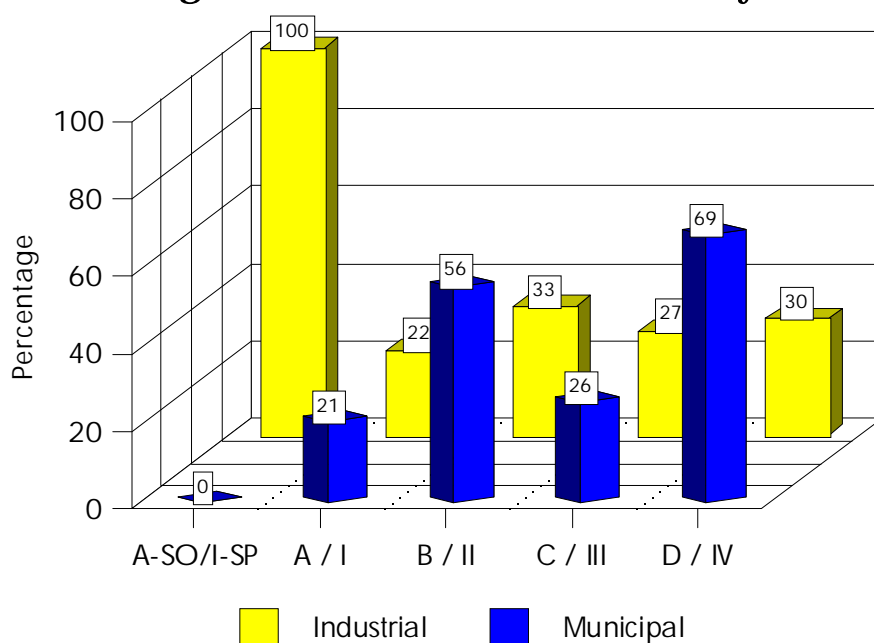
We have purchased an OMR (Optical Mark Reader) and new software for grading exams, preparing new exams and maintaining exam statistics. This means that the spring exams will be graded electronically! After all of the exams have been returned to this office and sorted, the actual grading should only take half a day with recalibrating the OMR scanner for each of the ten classes of exams. We will be able to give a pass or fail score over the phone as soon as this is done, probably three working days after the exam day.

We are introducing some changes to the May 1999 exams (see page 3). New study guides are available for all classes. Return the order form on page 3 to the certification office and the materials will be mailed to you at no charge.

One note regarding the May 1999 exams, we have added some new reference materials. We generally do not include more than 12 percent new questions on any exam. So, keep in mind that the new reference materials will be introduced slowly.

The certification program is currently being evaluated for major revisions. This is the time for your input. Watch the *Indiana Register* for notices. For more information, call Christine Hightower at (800) 451-6027, press 0 and ask for ext. 2-8666, or (317) 232-8666. E-mail: chightow@dem.state.in.us A

Passing Rates for November 1998 Exam by Class



TOP SCORERS

Municipal

CLASS I

Gregory Kutkoski
Hammond

CLASS II

Ann M. Ehinger
Fort Wayne

CLASS III

Jeffrey H. Smith
Greensburg

CLASS IV

John C. Binkerd
Peru

Jeff Vachon
New Haven

Industrial

CLASS A-SO

David Burden
Madisonville, KY

CLASS A

Gary Baize
Mooresville

CLASS B

David Donathen
South Bend

CLASS C

Nancy L. Keel
Indianapolis

CLASS D

M. Allen Ruddick
Crothersville



Microscopic Examination of Activated Sludge

The Sawmill Creek Wastewater Treatment Plant, Ohio, began to have a bulking problem with activated sludge. Microscopic examination of sludge identified the type of filamentous bacteria that is generally associated with a high sulfide content in wastewater. The operator traced the source of sulfide to a newly installed force main which ran only at night. By adding nitrate to the force main and chlorine to the return activated sludge line, the problem was controlled. This is an example of how microscopic examination of biomass can be used to troubleshoot plant operations. For more information, call Kevin Green at (800) 451-6027, press 0 and ask for ext. 3-3555, or (317) 233-3555. E-mail: kgreen@dem.state.in.us A

Oxidation-Reduction Potential Meters & Effluent Chlorination

The use of oxidation-reduction potential (ORP) meters is increasing, according to an article in the October 1998 issue of *Operations Forum*. There are still some concerns regarding the use of ORP meters such as a lack of sensitivity above 1.0 mg/L chlorine and erratic measurements on occasion. However, low maintenance requirements and the potential for minimizing chlorine use make an ORP meter an attractive device for many plants. All nine plants in the article reported tighter control of chlorine residual/disinfection and five of the nine plants reported savings in chemical costs for chlorine and/or sulfur dioxide. For more information, call R. David Denman at (800) 451-6027, press 0 and ask for ext. 2-8794, or (317) 232-8794. E-mail: ddenman@dem.state.in.us A

Wastewater Certification Rule Revision

There are many opportunities to become involved in the certification and continuing education programs. If you would like more information or are interested in being appointed to the **Continuing Education Advisory Group**, or if you are interested in attending future **External Certification Workgroup** meetings, please contact Jackie Adams, certification administrative assistant, at (800) 451-6027, press 0 and ask for ext. 3-0419, or (317) 233-0419.

We are presently forming an Exam Reference Texts Review Committee.

The first meeting of the Exam Reference Texts Review Com-

mittee is scheduled for Wednesday, April 14, 1999 at 1:30 p.m. in Indianapolis. The purpose of the committee is to:

- \$ Research what material is available,
- \$ Prepare an evaluation form for the material,
- \$ Evaluate the reference texts,
- \$ Compare the available texts with the proposed rule changes to the municipal and industrial classification systems, and
- \$ Determine deficiencies in the available material.

If you would like to participate, please call Christine Hightower at (800) 451-6027, press 0 and ask for ext. 2-8666, or (317) 232-8666. E-mail: chightow@dem.state.in.us A

\$ The Exam Reference Texts Review Committee meeting will be held Wednesday, April 14, 1999, at 1:30 p.m. in Indianapolis. For more information, read the Wastewater Certification article (right).

\$ Wastewater Treatment Plant Operator Certification Examinations for all industrial and municipal classes, will be held May 13, 1999. The postmark deadline for applications is March 29, 1999. For more information, refer to the Operator Certification article on page 1.

\$ New study guide(s) for Classes I, II, III, IV, A, B, C and D, and the Wastewater Operator's Guide are now available. Order yours by using the form on page 3.

Continuing Education Course Approvals

The Certification Workgroup, Continuing Education Advisory Group and other IDEM Staff have been involved in many discussions over the past year regarding the approval of courses for continuing education credit. The criteria for the approval of continuing education courses is (327 IAC 8-12-7.2):

“(A) The course deals with matters related directly to water distribution, water or wastewater treatment, or the professional responsibility of certified operators.

“(B) Each instructor/speaker is qualified by academic work or practical experience to teach the assigned subject.”

The continuing education program is a crucial component of the certification program. Where the exam takes a picture in time, the continuing educa-

tion program serves as a development tool throughout the career of the certified operator.

Since we do not require operators to retest in order to renew their license, the continuing education program is our only means to not only maintain, but to improve upon the level of excellence achieved by our operators at the time of initial certification.

We are currently developing a non-rule policy to clarify the term “*related directly to wastewater treatment.*” More information should be available in the next issue of *Operator Examiner*. For further information, call Christine Hightower at (800) 451-6027, press 0 and ask for ext. 2-8666, or (317) 232-8666. E-mail: chightow@dem.state.in.us A

Continuing Education News

Internet

Plans to link our Course Approval and Contact Hour databases to the IDEM Web site have been put on hold due to our Information Technology office's decision to change our database software from Paradox to Microsoft Access, which should better serve our networking needs. The phase-in of this new software should begin in the fall.

Renewal Cards

In January, we began processing renewal cards differently in order to issue cards more quickly. In the past, license renewals have been processed by certification staff primarily in May, June and July. Cards were printed by our Information Technology office in two large batches, one in July and one in August.

Recent upgrades to certification and continuing education databases have made it possible for certification staff to print renewal cards ourselves. So,

we will process renewals in small batches, as they are received by mail. We encourage you to submit your renewal in advance of the June 30 deadline so that your card may be issued in advance of the expiration date.

Contact Hours Averaged to Half Hour

We will now be able to process continuing education contact hours in half hour increments. This means that you may submit course approval applications and credit report forms that are averaged to the half hour rather than the hour.

Wastewater Course List

Training providers interested in advertising approved courses in IDEM's Wastewater Courses publication should call Christine Hightower at (800) 451-6027, press 0 and ask for ext. 2-8666, or (317) 232-8666 and ask to be placed on the training providers mailing list. E-mail: chightow@dem.state.in.us

Indiana Operators

Exams are given in May and November each year. The following totals include operators whose licenses have expired but are still within the three year grace period during which their license may be renewed without retesting.

Total Numbers of Operators by Class

	Licensed & Renewable	
I-SP	20	
I	689	
II	601	
III	287	
IV	361	
Subtotal Municipal:	1958	
A-SO	100	
A	368	
B	365	
C	257	
D	339	
Subtotal Industrial:	1429	
Total:	3387	

May 1998 Exam Final Passing Rates (After exam review period)

		Number of Examinees
I-SP	50%	2
I	53%	98
II	46%	54
III	35%	43
IV	36%	31
A-SO	100%	4
A	63%	43
B	36%	59
C	35%	29
D	60%	37
Overall Passing Rate:	47%	
Total Examinees:	400	